

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

11-13-02

Applicants: TOMAS DIEZ ET AL. Docket No.: 02-171

Serial No.: 10/082,874 Examiner

Filed: February 26, 2002 Art Unit: 2641

For : CONTROL MODULE FOR HVAC SYSTEMS

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Suite 1201

New Haven, CT 06510-2802

## INFORMATION DISCLOSURE STATEMENT

RECEIVED

Hon. Commissioner of Patents & Trademarks United States Patent and Trademark Office Washington, DC 20231

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**Technology Center 2600** 

Dear Sir:

In accordance with the requirements of 37 C.F.R. 1.97 and 1.98, Applicants hereby submit the prior art documents cited in the corresponding International Search Report listed hereinbelow, copies enclosed.

1. U.S. Patent No. 5,809,462, Patented September 15,
1998, by Nussbaum, for METHOD AND APPARATUS FOR
INTERFACING AND TRAINING A NEURAL NETWORK FOR
PHONEME RECOGNITION. This reference relates to a
method for training a neural network comprising the
steps of: inputting an audio signal including a
training set of phonemes; dividing the signal into
segments, each segment representing a phoneme;
identifying each segment; transforming segments into
time independent vectors; verifying that at lest one

of the segments or vectors represents to a degree acceptable to an operator a corresponding one of the training set of phonemes; and training the neural network using the time independent vectors.

2. U.S. Patent No. 6,021,387, Patented February 1, 2000, by Mozer et al., for SPEECH RECOGNITION APPARATUS FOR CONSUMER ELECTRONIC APPLICATIONS. This reference relates to a spoken word or phrase recognition device. The device does not require a digital signal processor, large RAM, or extensive analog circuitry. The input audio signal is digitized and passed recursively through a digital difference filter to produce a multiplicity of filtered output waveforms. These waveforms are processed in real time by a microprocessor to generate a pattern that is recognized by a neural network pattern classifier that operates in software in the microprocessor. By application of additional techniques, this device has been shown to recognize an unknown speaker saying a digit from zero through nine with an accuracy greater than 99%. Because of the recognition accuracy and cost-effective design, the device may be used in cost sensitive applications such as toys, electronic learning aids, and consumer electronic products.

3. Japanese Publication No. 4-327748, Published November 17, 1992, for CONTROLLER FOR AIR CONDITIONER. Although this reference is in the Japanese language, the drawing are believed to be clear. An English language Abstract is attached hereto and reads as follows: A main part of a controller for an air conditioner is constituted or a remote controller 1 and an indoor unit controller The remote 1 is provided with a microphone 3 through which an indication word is inputted in voice, a plurality of key switches 4 through which various kinds of signals are inputted, a plurality of LSD displays 5 and the like. A voice recognizer LSI 6 outputs various kinds of control signals to be inputted into a receiver 22 of the indoor unit controller 2. A microcomputer is provided at a central position of these instruments. On the other hand, the indoor unit controller 2 is provided with another microcomputer 21 for driving and controlling various kinds of functions of the air conditioner, and further, the receiver 22, the LED display and the like are connected around the microcomputer 2. Thus whether the command word can be recognized or not can be informed to an operator visually per voice.

Copies of the foregoing patents are enclosed herewith along with a listing on form PTO-1449.

The undersigned submits the above-identified references for independent consideration by the Examiner and does not make any admission that these references are or are not material to the present invention or that these references are or are not prior art with respect to the present invention.

If any fees are required in connection with this case, it is respectfully requested that they be charged to Deposit Account No. 02-0184. A duplicate copy of this paper is enclosed herewith in connection with any deposit account charge.

Respectfully submitted,

TOMAS DIEZ ET AL.

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Date: October 30, 2002

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner of Patents and Trademarks, Washington, D.C. 20231

on 10-30-2002

Janice T. Staton

ate of Signature

Approved for use through 10/31/2002. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

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## INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Complete if Known				
Filing Date	February 26, 2002			
First Named Inventor	Tomas Diez et al.			
Group Art Unit	2641			
Examiner Name				
Attorney Docket Number	02-171			

U.S. PATENT DOCUMENTS						
Examper Initials	Cite No.1	U.S. Patent Document  Kind Code <sup>2</sup> (If known)		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
E.	1	5809462		NUSSBAUM	09/15/1998	
AT EN	2	6021387		MOZER ET AL.	02/01/2000	
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FOREIGN PATENT DOCUMENTS								
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EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>&</sup>lt;sup>1</sup> Unique citation designation number. <sup>2</sup> See attached Kinds of U.S. Patent Documents. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark hee if English language Translation is attached.